Study of the Dietary Habits of Employees Working in PSUs of Ranchi City and Its Impact on Their Health

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3. **Title of the Ph.D. Research**:Study of the Dietary Habits of Employees Working in PSUs of Ranchi City and Its Impact on Their Health
4. **Introduction:**Consuming a healthy diet throughout a person's life helpsprevent malnutrition in all its forms as well as a range ofdiet-related non-communicable diseases and conditions.But the increased consumption of processed food, rapidurbanization and changing lifestyles has led to a shift indietary patterns. People are now consuming more foodshigh in energy, fats and free sugars or salt/sodium, andmany do not eat enough fibre-rich fruits, vegetables andwhole grains (WHO, 2019).Healthy eating is defined as eating practices and behaviors that are consistent with improving,maintaining and /or enhancing health (Raine, 2005).The preference for eating habits or foods in humans is established by the influences from socioeconomiclevel of household, religion, tradition, regional characteristics, educational level of parents, public mediaand long-term education at home, school, and the society. Religion, sex, age, physiologicalchanges, psychological factors, symbolic use of foods, taboos, social prestige and economic factors affectfood preferences in all cultures (Musaigeret al., 1992).Meal pattern and food intake are markers for nutrient intakes and diet quality (Kerver et al., 2006).Nutrient intake has an influence on health and development of several chronic diseases. Meal patternsaffect resting energy expenditure, body fat, bone density, serum cholesterol and many other situations(Andersson et al., 2000; Chapelot et al.,2006; Deutz et al., 2000).The key features of the eating patterns include snacking, skipping meal, breakfast skipping, dietingadoption of specific diets (such as vegetarian diet), confectionery, and fast food eating (Chitra, 2007;Jenkins, 2005).Recent studies have implicated eating behavior and dietary factors as one risk factor in several importantdiseases such as cancer, coronary heart diseases and obesity. They further suggest that decreasing totalfat, saturated fat and cholesterol intake, and increasing consumption of vegetables and fruits might reducethe prevalence of these health disorders (Lissneret al., 1995; Tavani et al., 1995).Balanced meal through healthy and rational eating habits is very important in the growth, developmentand health improvement in humans, and this is not accomplished by appetite or food preference but canbe accomplished by the practice of proper dietary habits on the basis of proper nutrition knowledge (Omidvar et al., 2014). The present study would focus on getting insight on the dietary habits of the employees working in PSUs of Ranchi city by studying their meal pattern and food intake and also draw an inference about its impact on their health.
5. **State of the art**:A healthy diet is required since it allows adults to work productively and feel their best. Good food choices also can help to prevent chronic diseases, such as heart disease,

certain cancers, diabetes, stroke and osteoporosis that are leading causes of detour. A proper diet can also reduce major risk factors for chronic diseases, such as obesity, high blood pressure and high blood cholesterol (Hoque et al., 2016).While diet and physical activity-related knowledge and practices as well as environmental factors were limited, the broader determinants such as socio-economic status accelerated the migration to urban areas and exposure of population (in particular, female and children) to an obesogenic environment. In particular, traditional dietary and physical activity practices were being displaced negatively affecting one's health. Decline in agricultural activities was affecting physical activity level, local food systems and ultimately economy (Sharma et al., 2023).Over recent decades; there has been a growing trend to promote healthy eating, largely based on unprocessed, plant-based foods and organic and ecological products. On the other hand, the industry is providing us with many new products derived by new methods or using new food sources. The disorders related to the mentioned trends are orthorexia nervosa, which can be shortly described as a pathological obsession with eating only healthy food and excessive worrying regarding healthy dietary intake (Brytek-Matera et al., 2020), and food neophobia, which is related to the reluctance to eat or the avoidance of new food (Jezewska et al., 2021).The evaluation of eating habits and behaviours is essential for taking appropriate further steps in both research and clinical practice, which will be adjusted to the specificity of different populations (Arhire et al., 2021). To decrease the ailments caused by occupational postures, one should avoid long sitting hours and should take frequent breaks for stretching or for other works involving physical movements. In this revolutionized era we cannot stop doing the developmental work, but we can certainly reduce our ailments by incorporating these simple and effective measures to our lives. Moreover, the consumption pattern giving priority to fast food culture has to be effectively controlled. Even though, consumerism increases spending and boosts a country's economy therefore increases its status around the globe, the evidence presented demonstrates the effects of unregulated consumption in modern society. Here is the role the media, marketers and social class play in moulding an individuals' identity, protecting their good health and the efficiency and productivity of nation's huge human resources (Mathew, 2012).Results suggest that the frequent consumption of healthy food items is associated with higher work engagement, irrespectively of the consumption of unhealthy nutrients. Interestingly, there was no association between the consumption of unhealthy food items and work engagement (Virtanen et al., 2022).In a cross-sectional study conducted among Japanese employees, a bi-directional pathway was suggested, i.e., higher work engagement promotes healthier lifestyle habits, and vice versa. It was also speculated that by improving employees' work engagement, it might be possible to positively impact peoples' dietary habits (Amano et al., 2020). One possible mechanism by which a healthy diet may directly improve mood and cognitive capacity is to influence the inflammatory status of the body. Low-grade inflammation has been linked with the generation of several diseases, including cardiovascular disease and depression (Miller et al., 2009; Libby, 2002). There is

evidence that a balanced and healthy diet decreases low-grade inflammation and may thereby influence not only cardio metabolic risk factors, but also cognitive capability (McGrattan et al., 2019; Nilsson et al., 2013; Neale et al., 2016). On the other hand, it has been postulated that an unhealthy diet may contribute to lowgrade systemic inflammation, with subsequent psychiatric disorders such as depression (Tolkien et al., 2019; Miller et al., 2009; Miller et al., 2016). Depressive and anxiety symptoms were more prevalent among those who ate healthy food items less frequently. However, there was no negative association between the consumption of unhealthy (and proinflammatory) diet and low work engagement. In fact, the consumption of certain unhealthy and proinflammatory food items (red meat, juices and beverages sweetened with sugar, and sweet bakery products) was more frequent among those who otherwise ate in a healthier way. One possible explanation for this finding is that the high consumption of healthy anti-inflammatory food items is sufficient to inhibit harmful low-grade inflammation in the body induced by proinflammatory food items. Further studies are required to address this question. Another possible explanation for the association between high work engagement and healthy diet is that the diet can directly influence gut microbiota (Bibbò et al., 2016). Recent studies suggest that the gut microbiota may play a significant role in the generation of mental diseases such as depression (Sanada et al., 2020). Further research with a longitudinal study design is needed to determine whether work engagement can be improved by influencing the gut microbiota with a healthier diet. The subjects who ate more healthy food items had also healthier lifestyle habits. Moreover, the participants who ate healthy food items more frequently consumed more from all healthy food item categories. They also had a regular daily breakfast more often than participants with unhealthier dietary choices (Virtanen et al., 2022). The importance of a regular breakfast has been established in weight control (Wang et al., 2019). Some changes in dietary habits, physical activity, and lifestyle are related to the busy schedule and long practical stages (Pop et al., 2021). Prevention of weight excess, obesity, and related diseases has become a worldwide challenge. Given the significant association between low diet quality and weight gain, researchers have focused on evaluating the association between the nutritional quality of dietary intake and the health outcomes (Drenowatz, 2015).

The high breaks in sedentary behaviour contribute to an increase in the chance of high consumption of fruits and cereals. High breaks in sedentary behaviour were also associated with higher chance of being highly active. Breaks in sedentary behaviour may lead to better healthy habits as healthy foods consumption and physical activity engaging even among those with high sedentary behavior (Delfino et al., 2020).

6. **Problems to be investigated**:

Unhealthy dietary habits and physical inactivity have been identified as key risk factors in increasing non-communicable diseases (NCDs) in developing countries (WHO, 2015; Lachat et al.,2013). It has been estimated that dietary and physical activity risks attribute to approximately

5.3 million premature deaths annually (Lee et al., 2012). Increasingly, there is evidence relating to socio-economic and environmental determinants influencing diet and physical activity, often collectively termed social determinants (Kohl et al., 2012; Graham et al. 2016).

Global health agencies and experts have been pushing the agenda of NCDs prevention in both developed and developing nations through focusing on the social determinants of health (WHO, 2011; WHO, 2015; Solar et al., 2010; Marmot et al., 2019). In 2008, the World Health Organization proposed the landmark Social Determinants of Health Framework, which highlighted the association of proximal and distal determinants of health and suggested directions for actions (Solar et al, 2010). Since then, there has been increasing focus in understanding and taking action on the social determinants of complex health issues such as NCDs globally (Donkin et al., 2017).

However, developing countries are far behind in their understanding and actions on the social determinants of health compared to developed countries (Donkin et al., 2017; Marmot et al., 2010; Ball et al., 2015). Global evidence has suggested that physical inactivity as well as junk food consumption is rapidly increasing due to social, environmental and economic influences (Kohl et al., 2012; Graham et al., 2016; Moodie et al., 2013). Rapid urbanization and changing nature of work (sedentary nature and increasing mechanization of physical work) are impacting physical activity and dietary patterns (Kohl et al., 2012; Halla et al., 2012).

Non-communicable diseases (NCDs) such as obesity, cardiovascular diseases (hypertension, stroke, and atherosclerosis), various types of cancer (breast, colon, and prostate), and type II diabetes are the leading cause of death globally, and one of the major health challenges of the 21st century (WHO, 2014). Every day, 3.45 billion people go to work (The World Bank, 2020) and NCDs contribute 70%, injuries 22% and infectious diseases 8% to the total disease burden from occupational risks (Wolf et al., 2018).Working in an office setting is characterized by sedentary work, and the main components associated with the development of NCDs are physical inactivity and poor food habits (Kim et al., 2012). An office worker is defined as “an employee who works in an office, especially one engaged in clerical or administrative work” (Dictionary, 2019). Another term for this type of work is white-collar workers and they are defined as “people who work in offices, doing work that needs mental rather than physical effort” (Dictionary, 2019). Coincidently, the retirement age has increased, and people need to work for more years and at older ages, including an age where age-related NCDs are getting more common.Thus, it is crucial that precautionary actions are taken to prevent the development of NCDs and to help manage early stages of NCDs by offering healthy lifestyles at work. The workplace is and can be one of the most important settings affecting eating habits and the physical, mental and social well-being of office workers. A substantial proportion of the adult population spends a significant amount of time at work each day. Full-time employees spend up to 60% of their waking hours at work (Allan et al., 2017).Sedentarybehaviour is defined as the time spent in activities of energy expenditure of >1.5 Metabolic equivalent of task - METs in seated, reclined or lying posture (Compernolle et al.,

2016). Nowadays, people spend much of their awake time on this type of activities, resulting in an increased sedentary behaviour both at work and leisure time (Chastin et al, 2015). WHO report highlights that 3.2million of deaths per year were attributed to sedentary lifestyle (WHO, 2008). Adult population spends around one-third to one-half of daily time in sedentary behaviour, with prolonged hours on screen devices as watching TV, using computers, participating in screen-based recreation or driving (Nam et al., 2016). The amount of time in sedentary behaviour has been widely evaluated in three ways: (i) checking for specific behaviours, such as television time; (ii) quantification of sedentary time in a specific domain (work, leisure or transportation); (iii) total time allocated to all manifestations of sedentary behaviour throughout the day (Healy et al., 2011). In this sense, a large proportion of daily sedentary behaviours has been accumulated at work environment, once studies observed office workers spend at least two-thirds of their working hours seated. Besides, due to technological advances, sitting position has become a normative stance (Hadgraft et al., 2015). Sitting time has been related to unhealthy dietary habits in adults (Compernolle et al., 2016). Besides that, screen devices have been associated with exposure of food advertisements, which may lead to consumption of products of high energy density and low nutritional content (Maia et al., 2016). In this sense, the assessment of the relationship between sedentary patterns and dietary habits is important for public health, once adults with a healthy dietary pattern showed a more active lifestyle than those with unhealthy dietary patterns (Hsueh et al., 2019), and the association of physical activity and healthy dietary habits contributes to the prevention of diseases (Araujo et al., 2000). Prevention of weight excess, obesity, and related diseases has become a worldwide challenge. Given the significant association between low diet quality and weight gain, researchers have focused on evaluating the association between the nutritional quality of dietary intake and the health outcomes (Drenowatz et al, 2015). Studies reported an inverse association between increased diet quality and chronic disease-specific mortality (Aljadani et al., 2013; Ezzati et al. 2013; Ng et al., 2013) such that a healthy lifestyle (having a balanced diet, regular physical activity, avoiding smoking and excessive alcohol consumption) has been shown to reduce the alarming overall mortality caused especially by non-communicable diseases (Borgan et al., 2015; O'Conoor et al., 2017). Diet plays an inevitable role in human health and disease prevention. However, personal dietary choices involve not only what food and nutrients are consumed but also why, how, and under what circumstances. Focus on eating habits allows us to observe the complexity of socio-behavioural, economic, environmental and cultural determinants of the human diet. Individual eating habits, due to their longitudinal character, represent an important contributor to disease. On the other hand, eating habits can be modified, and therefore are a promising target for lifestyle interventions, which can influence future health(Przybyłowicz et al., 2022). SThe increasing prevalence of chronic diseases is challenging societies and healthcare systems around the world. Lifestyle habits such as dietary behavior play a key role in the development of various types of chronic diseases, including

obesity, diabetes mellitus, cardiovascular disease, hypertension, stroke and some types of cancer (WHO, 2003). In recent decades, Western populations have developed socio-cultural habits and dietary patterns with detrimental health effects. Specifically, prevalent eating behavior has shifted from the consumption of whole foods to highly processed, energy-dense and nutrient-poor foods, also referred to as the nutrition transition (Popkin, 2006; Wijayaratneet al., 2018; Colatruglioet. al., 2014). Moreover, due to the abundance of convenience foods, many people no longer possess the necessary knowledge and skills to prepare healthy meals from whole food ingredients (Wijayaratneet al., 2018). Together, these circumstances make it increasingly difficult for individuals to navigate the food environment in a healthy way (Poelman, 2018). Considering these extensive socio-cultural nutrition-related threats to the health of individuals and societies, enabling people to make healthier food choices to prevent chronic disease is a key challenge in the modern world (Vidgenet al., 2014; WHO, 2003).The occupational pattern in India has undergone drastic changes in recent decades giving priority to IT and other similar services neglecting the very base of the agrarian culture. Along with these changes in occupation, the food habits of the society too changed that gradually caused the spread of several lifestyle diseases in our society. Several studies have been conducted by different organizations to identify the magnitude of lifestyle diseases in India. According to a survey conducted by the Associated Chamber of Commerce and Industry (ASSOCHAM), 68 percent of working women in the age bracket of 21-52 years were found to be afflicted with lifestyle disorders such as obesity, depression, chronic backache, diabetes and hypertension. Another study by Preventive Healthcare and Corporate Female Workforce summarized that long hours of work under strict deadlines cause up to 75 percent of working women to suffer from depression or general anxiety disorder, compared to women with lesser levels of psychological demand at work. Women employed in sectors that demand more time like those in media, knowledge process outsourcing and touring jobs are unable to take leave when they are unwell. These tensed and continuous working conditions force themselves to work mainly due to job insecurity, especially during the current financial meltdown. In India, around 10 percent of adults suffer from hypertension while the country is home to 25-30 million diabetics. Three out of every 1,000 people suffer a stroke. It is predicted that globally, deaths from non communicable diseases (NCD) will increase by 77 percent between 1990 and 2020 and that most of these deaths will occur in the developing regions of the world including India. These conditions not only cause enormous human suffering, they also threat the economies of many countries as they impact on the older and experienced members of the workforce. In India alone, heart ailments, stroke and diabetes are the most demanding ones which are expected to take away the country's gross national income to a huge extent by the year 2015. As per the report, jointly prepared by the World Health Organization and the World Economic Forum, India will incur an accumulated loss of $236.6 billion by 2015 on account of unhealthy lifestyles and faulty diet. The resultant chronic diseases like heart disease, stroke, cancer, diabetes and respiratory infections

which are ailments of long duration and slow progression, will severely affect people's earnings (Mathew, 2012). Poor eating patterns can lead to low work productivity, increased absenteeism, increased medical expenses, and increased morbidity (Asay et al., 2016).

7. **Objectives of the investigation and motivation**: As per the reported literature, no previous assessment on the dietary habits of employees working in PSUs of Ranchi city has been conducted.Hence the objective of this research is

   i. To study about the dietary habits and life style of employees working in PSUs and its impact on their health.

   ii. To study about the dietary modifications,if any that have been implemented in the last 05 years by the employees working in PSUs

   iii. To assess the Nutrition Literacy of PSU employee suffering from non-communicable diseases (Diabetes, Hypertension, Hyperlipidemia, Overweight/Obesity)

The motivation behind this research is to add something new which is not known or less known that may be useful for the improvement of the society and helpful in solving true world problems. This study will help in policy making as well as any nutrition programmed on PSU workers. Additionally, I will use the findings of the research in improving my day-to-day actions. This research would provide me personal satisfaction and I will derive joy in adding something positive to the world. The horizon of knowledge needs to be expanded continuously and the present research would also be helpful in my professional career growth also.

8. **Research Questions**:

i. Does the dietary habits and life style of PSU Worker is responsible for their bad health status?

ii. Has there been any significant dietary modification adopted by thePSUs employees during the last 05 years?

iii. Does the nutrition literacy of PSUs employees suffering from non-communicable diseases is very poor?

iv. Research Design and methodology:

The survey method together with observation and clinical examination will be used to gather data for the proposed research. The present study would be a cross-sectional study thatwould be conducted on the purposively / conveniently selected 100 employees belonging to different age groups working in the different PSUs of Ranchi city. The data would be collected the help of a pre framed schedule,based on the objectives of the study.

v. Sources of data: The research work will be based mainly on primary data, however secondary data sources will also be used for the study. Primary data would be collected from the respondents with the help of a schedule by interviewing them. Dietary habit would be assessed by using food frequency schedule. The schedule would be designed to obtain data about

meal pattern, meal timings, skipping of meals and no. of meal, food preferences, snaking pattern, food habits, dietary intake, nutritional status, lifestyle, Physical activity, exercise pattern, height and weight of the employees, income group of the employees, working hours, work area stress etc. Respondents would be asked to recall his/her exact food intake of 3 day which will include 2 working days and 1 non-working day. The recall will include day, date, time, meal, menu, amount, source of food and nature of food consumed etc.Nutritional status would be determined by Body Mass Index according to WHO cut-off value for Asian population. The schedule will also include questions related to followed dietary modification if any.

Area of Research-The area of present research would be limited to PSUs located in Ranchi city only.

Respondent- The respondents would be employees working in PSUs located in Ranchi city.

Sample Size and Selection–Total 100 employees (male and female both) would be selected purposively from the five (05) PSUs selected randomly from a list of PSUs in Ranchi city. Further 20 employees from each randomly selected five PSUs will be selected purposively to draw sample size of 100 respondent.

Tools and techniques to be used in the collection of data

Schedule-A structured pre tested schedulewill be prepared and used for collection of data pertaining to this study. The schedule will contain questions to assess their dietary habits and life style, any dietary modification being followed, question related to their nutrition literary to find out theimpact of dietary habit on their health.

Independent variables: -Age, Height,Weight,Working status (Executive/ Non-Executive), education, income group

Dependent variables: - Health Status- Body Mass Index (BMI),Nutrition literacy, Dietary habits

Anthropometric Measurement: - Anthropometric measurement will include height (in m), Weight (in kg),Body Mass Index (BMI), waist circumference (in Cm) would be included.

Analysis of Data: Descriptive statistical analysis such as percentage, mean, range, standard deviation etc. will be carried out.

Health status as BMI is being assumed as a function of independent variables as Age, height, weight, education, work status, income etc. then it may be tested as

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

Where Y is BMI as independent variable and X_1, X_2, X_3, X_4, X_5, $X_6$are Age, height, weight, education, work status, income respectively. (multiple linear regression)

v. Significance of Study:The present study about Dietary habits of employees working in PSUs of Ranchi city and its impact on their healthwould help in establishing the relationship between work,

diet and the health of employees.It would also help us in observing complexity of socio-behavioral, economic, environmental and cultural determinants of the human diet. Individual eating habits represent an important contributor to disease. Further, eating habits can be modified with various lifestyle interventions which may improve future healthof employees.The increasing prevalence of chronic diseases is challenging societies and healthcare systems around the world. Lifestyle habits such as dietary behavior play a key role in the development of various types of chronic diseases, including obesity, diabetes mellitus, cardiovascular disease, hypertension, stroke and some types of cancer.Inrecent decades, Western populations have developed socio-cultural habits and dietary patterns with detrimental health effects. Specifically, prevalent eating behavior has shifted from the consumption of whole foods to highly processed, energy-dense and nutrient-poor foods, also referred to as the nutrition transition. Moreover, due to the abundance of convenience foods, many people no longer possess the necessary knowledge and skills to prepare healthy meals from whole food ingredients. Also, as the number of working females is increasing, there is not enough time for preparation of healthy meals for the family. Considering these extensive socio-cultural nutrition-related threats to the health of individuals and societies, enabling people to make healthier food choices to prevent chronic disease is of utmost importance. Also, there is great variation in Dietary habits from one region of ourto another region. Working in an office comes under the sedentary work category, requiring much of mental work rather than physical effort. Prolonged sitting hours and sedentary lifestyle leads to the development of NCDs which are a global threat. To my knowledge, no previous assessment on the dietary habits of employees working in PSUs of Ranchi city has been conducted. This study would be a modest attempt to explore dietary pattern and nutritional status of employees working in PSUs of Ranchi city and will help in policy making as well as any nutrition programmed on them.

i. **Its relevance to the present-day problem and need to the society**: -Non-Communicable Diseases (NCDs) are a major threat to public health and calls for an international action on surveillance, prevention and control. Globally, as per the WHO Global Action Plan 2013-2020, more than 36 million die due to NCDs of which 14 million die before the age of 70 years (Van Minh et al., 2013). India in the last decade has been witnessing an increase in NCDs (Kastor et al., 2018; Mahal et al., 2010; Van Minh et al., 2013). Coupled with this are changes in lifestyle, unhealthy eating habits, tobacco smoking and rise in alcohol intake, and increased urbanization that has resulted in the growing number non-communicable diseases in India (Prentice, 2006; Sinha & Kumar, 2010). The National Policy 2017 calls for more focus on growing burden of NCDs and the growing incidence of unsustainable expenditure for health (MoHFW, 2017). In 2017, it was estimated that approximately 4.7 million deaths have occurred in India due to NCDs that comprised 49% of all-cause mortality, of which cardiovascular diseases (23%), chronic respiratory diseases (9%), cancer (6%) and diabetes (2.4%) were the major causes (Menon et al.,

2019), 65% of these deaths occurred below the age of 70 years which could have been prevented and the DALYs for NCDs accounted for 47% of all-cause DALYs. Hospitalization rates due to NCDs during this time period has risen from 29% in 2004 to 38% in 2014 (National Health account (2004-05)). The premature deaths due to NCD have a high socio-economic impact as the affected are most likely the main income earner in the household. Several studies have shown that households where at least one member has one or more NCDs face higher health care expenditure compared to those who were diagnosed with any other disease (Li et al., 2012; Saito et al., 2014; Somkotra et al., 2009; Weraphong et al., 2013). NCDs require a longer period of care and the health delivery system needs to be geared up by procuring technologically advanced equipments to take care of the patients. The share of out-of- pocket expenditure to total health expenditure remained unchanged during the period 2004 (71%) and 2014 (69%) (Garg et al., 2009). Kastor et al., 2018 estimated a mean OOPE of INR 57 232 for cancer and INR 40 947 for heart diseases. Another study found that the government spending on NCDs and Injuries is less than 0.5% of the GDP. The states spend about 80% for NCDs while the Ministry of Health and Family Welfare, Government of India's (GOI) share is about 65% of the total central spending (Gupta et al., 2019). Proper nutrition offers one of the most effective and least costly ways to decrease the burden of many diseases and their associated risk factors, including obesity. Nutrition research holds the key to increasing our understanding of the causes of obesity and its related co-morbidities and thus holds promise to markedly influence global health and economies. The multidisciplinary nature of nutrition research requires stakeholders with differing areas of expertise to collaborate on multifaceted approaches to establish the evidence-based nutrition guidance and policies that will lead to better health for the global population. The attainment of good nutrition depends on and encompasses the entire food supply. Plant and animal foods and their various components are the primary vehicles that provide nourishment to human beings. Nutrition is vital, not only in the growth and development of humans and animals but also in the prevention and treatment of disease. Nutrition is also fundamental to the maintenance of good health and functionality. Basic and applied research on the interrelations between nutrition and non-communicable diseases, nutrient composition, and nutrition monitoring represents the underpinning for healthy populations and robust economies. Thus, innovative nutrition research and education provide the basis for solutions to larger health-related issues, allowing individuals to live healthier, more productive lives. Knowledge about adequate nutrition also has an important role in reducing or ending global and domestic food insecurity through direct and purposeful agricultural practices. Population growth will undeniably lead to increased global demand for a safe, available, sustainable, and affordable food supply, while continuing to demand nutritional adequacy (Ohlhorst et al., 2013). According to the health field concept, the most important factor affecting health is a lifestyle (Mizia et al., 2021). Knowledge of nutrition behaviors is an essential element in designing educational activities (Antwi et al.,

2012). Work engagement reflects work-related well-being. It is positively associated with health, life satisfaction, work efficiency, income level, and occupational prospects. However, little is known about the relationship between work engagement and diet. Further research is needed to determine whether work engagement can be improved by consuming a healthy diet. (Virtanen et al, 2022).In view of the above, it may be concluded that the present study is the need of the society in the present scenario.

ii. **Contribution to the existing knowledge**- To my knowledge, no previous assessment on the dietary habits of employees working in PSUs of Ranchi city has been conducted. This study would be a modest attempt to explore dietary pattern and nutritional status of employees working in PSUs of Ranchi city and will help in policy making as well as any nutrition programmed on them. The study would also help to draw a conclusion regarding what changes/ modifications may be made to improve their future health.

iii. **Future work**-Such type of study may also be conducted on the employees working in PSUs of other cities also as dietary habits are also influenced by the difference in geographical area, culture, traditions etc. so as to have a broader picture. These findings will be used to design and conduct educational, nutritional and physical activity programs, based on the results obtained from this study, for the adoption of healthy eating habits and physical activity in working adults. Conducting a qualitative study prior to the implementation of a health program in a population of interest follows the recommendations of the Workplace Health Model of the Centers for Disease Control and Prevention (CDC) to promote the success of health programs.

iv. **Limitations:-**

1. The study will be limited toPSUs within Ranchi city only.
2. The study will be conducted on those employees who voluntarily would be interested in participation.

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